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**REMARKS:**

In response to the Office Action mailed April 5, 2005, claims 33, 42, and 58 have been amended. The scope of the amended claims has not been narrowed or otherwise changed by these amendments. In addition, Applicants have submitted a replacement Declaration and replaced FIGURES 1 and 2, as requested by the Examiner.

In the Office Action, claims 1-6, 8-15, 19-21, 24, 32-38, 40-43, 45-49, 51-57, 58-63, and 65-68 were rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Pub. No. 2001/0011375 (“the Yun reference”) in view of U.S. Patent No. 6,473,788 (“the Kim et al. reference”). In addition, claims 16, 18, and 29-31 were rejected under 35 U.S.C. § 103(a) as unpatentable over the Yun reference in view of the Kim et al. reference, and further in view of U.S. Pub. No. 2002/0078441 (“the Drake et al. reference”), and claims 15, 17, 22, 23, and 25-28 were rejected under 35 U.S.C. § 103(a) as unpatentable over the Yun reference in view of the Kim et al. reference, and further in view of U.S. Patent No. 6,445,907 (“the Middeke et al. reference”).

Because none of the cited references, either alone or in combination, discloses, teaches, or suggests the subject matter of the present claims, the rejections should be withdrawn.

Turning first to the Yun reference, an open cable set-up box diagnosing system is disclosed that includes a cable head end for providing a broadcast program, subscriber managing servers connected to the cable head end, and an open cable set-top box connected to the cable head end. (¶ 63). Once established by the subscriber managing servers, the cable head end automatically transmits a command for periodically checking and reporting the operation state of the set-top box. (¶¶ 41, 91). The cable head end is also connected with a manufacturer of the

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set-top so that state information on a defective set-top box is transmitted to the set-top box manufacturer. (¶¶ 40, 41).

Although the Yun cable head end registers the state information with the subscriber managing servers, the Yun reference emphasizes that the cable head end inform the manufacturer of the troubled set-top box “on a real time basis” so that the set-box can be quickly repaired or replaced by the manufacturer. (¶¶ 40, 101). Because this automation is important in the Yun reference, the Yun reference expressly teaches against providing a GUI on a computer that allows an operator to selectively contact, query, and receive state information on a set-top box. Thus, although the Kim et al. reference arguably discloses a GUI, the only motivation for adding GUI to the Yun system is the present application, which constitutes improper hindsight.

Turning to the present claims, claim 1 recites a method for obtaining information from a set-top box that includes using a graphical user interface (GUI) on a computer to input a unique identifier for the set-top box; using the unique identifier to establish a connection across a network between the computer and the set-top box; querying for one or more internal states of the set-top box; and receiving the internal states at the computer, in response.

As explained above, the Yun reference fails to teach or suggest anything about using a GUI on a computer to input a unique identifier for a set-top box, as claimed. Instead, the Yun reference merely discloses a cable head end that periodically queries a set-top box, and therefore does not need a GUI. Also as explained above, given the automation of the Yun system, there is no motivation to provide a GUI from the Kim et al. reference on the cable head end of the Yun system. Further, even if the Kim et al. reference were somehow properly combined with the Yun

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reference, the resulting combination would merely provide a GUI on a cable head end that automatically and periodically queries a set-top box. In contrast, the claimed GUI and computer allow an operator to remotely diagnose problems and/or maintenance issues of a set-top box, as explained, for example, in paragraph 22 of the present application.

Further, the Yun reference also fails to teach or suggest querying for one or more internal states of the set-top box; and receiving the internal states at the computer, in response, as claimed. In contrast, the Yun reference transmits the state information to the manufacturer so that the manufacturer can decide whether to repair or replace the set-top box. Thus, the Yun reference expressly teaches against a method in which a GUI on a computer is used to input a unique identifier for a set-top box and then query and receive internal states of the set-top box at the computer. Accordingly, claim 1 and its dependent claims are not obvious over the Yun reference, even if somehow combined with the Kim et al. reference.

In addition, claims 12 and 13 recite additional limitations that are not obvious over the cited references. For example, claim 12 recites determining if the set-top box can be maintained or repaired *remotely* using the internal states. The Yun reference fails to teach or suggest such remote maintenance or repair, but instead merely discloses informing the manufacturer so that the manufacturer can decide whether to repair or replace the set-top box. The Kim et al. reference fails to provide the missing teaching, because, even if the manufacturer in the Yun system were capable of deciding whether the set-top box could be maintained or repaired remotely, neither reference teaches or suggests how the manufacturer could access the set-top box remotely.

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In addition, claim 13 recites the additional steps of performing a maintenance or a repair activity remotely, if the set-top box can be maintained or repaired remotely. Neither of the Yun nor the Kim et al. references discloses, teaches, or suggests maintaining or repairing a set-top box remotely, as claimed. For these additional reasons, claims 12 and 13 are also not obvious in light of the cited references. Similarly, claims 55, 56, and 69 are also not obvious.

Turning to claim 33, an apparatus is recited that includes a graphical user interface (GUI) on a computer, and one or more internal states of the set-top box that are queried from the computer to the set-top box across the network and received at the computer, in response. First, as explained above, there is no motivation to add a GUI to the cable head end of the Yun reference. Further, even if a GUI were somehow added to the cable head end of the Yun reference, the result would not be the claimed apparatus. Thus, for similar reasons to those given above, claim 33 and its dependent claims are also not obvious in light of the cited references.

Turning to claim 42, an apparatus is recited that includes a graphical user interface (GUI) on a computer; a unique identifier for a set-top box that is input into the GUI and establishes a connection across a network between the computer and the set-top box; a script that is generated at the computer and sent to an application server that is interposed between the computer and the set-top box; and one or more internal states of the set-top box that are queried when the script is executed on the application server and received at the computer.

First, as explained above, the Yun and Kim et al. references cannot be properly combined. Second, even if somehow properly combined, the cited references fail to teach or suggest a GUI on a computer, a script that is generated at the computer that causes one or more states on a set-

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top box to be queried and received at the computer. Accordingly, claim 42 and its dependent claims are also not obvious in light of the Yun and Kim et al. references.

Turning to claim 44, a system is recited for obtaining information from a set-top box that includes means for using a graphical user interface (GUI) on a computer to input a unique identifier for the set-top box; means for using the unique identifier to establish a connection across a network between the computer and the set-top box; means for querying for one or more internal states of the set-top box; and means for receiving the internal states at the computer, in response. The Yun reference does not teach or suggest means for using a graphical user interface (GUI) on a computer, means for querying for one or more internal states of the set-top box; and means for receiving the internal states at the computer, in response. Accordingly, claim 44 and its dependent claims are also not obvious in light of the Yun and Kim et al. references.

Finally, claim 58 and its dependent claims are also not obvious in light of the Yun and Kim et al. references for similar reasons to those given above. Claim 58 recites a computer program product that includes computer readable program code configured to cause a computer to enable a graphical user interface (GUI) which receives a unique identifier for the set-top box; computer readable program code configured to cause the computer to use the unique identifier to establish a connection across a network between the computer and the set-top box; computer readable program code configured to cause the computer to query for one or more internal states of the set-top box; and computer readable program code configured to cause the computer to receive the internal states at said computer, in response. Neither the Yun nor the Kim et al.

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reference discloses, teaches, or suggests a computer program product that causes a computer to enable a GUI, query a set-top box, and receive internal states of the set-top box, as claimed.

The remaining cited references, Drake et al. and Middeke et al., do not provide any additional disclosure, teaching, or suggestion of the limitations discussed above that are wholly absent from the Yun and Kim et al. references. Accordingly, the present claims are not obvious even if any of the cited references are somehow combined with one another.

In view of the foregoing, it is submitted that the claims now presented in this application define patentable subject matter over the cited prior art. Accordingly, reconsideration and allowance of the application is requested.

Respectfully submitted,

COHEN SAKAGUCHI & ENGLISH LLP

By \_\_\_\_\_

William A. English  
Reg. No. 42,515  
Attorneys for Applicants

Dated: October 5, 2005

2040 Main Street, 9<sup>th</sup> Floor  
Irvine, CA 92614  
Telephone: (562) 665-3953  
Facsimile: (949) 625-8955

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**IN THE DRAWINGS:**

Please replace original FIGURES 1 and 2 with new FIGURES 1 and 2, attached hereto.